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> BILT HARD 135A 3-in-1 IGBT Inverter Welder User Manual

BILT HARD WLD-1606

BILT HARD 135A 3-in-1 IGBT Inverter Welder User Manual

Model: WLD-1606 | Brand: BILT HARD

1. INTRODUCTION

This manual provides essential information for the safe and efficient operation of your BILT HARD 135A 3-in-1 IGBT Inverter Welder. Please read all instructions carefully before use to ensure proper setup, operation, and maintenance. This welder supports Flux Core MIG, Lift TIG, and Stick (MMA) welding processes, offering versatility for various welding tasks.

2. SAFETY INFORMATION

WARNING: Welding can be dangerous. Always follow safety precautions to prevent injury or death.

- Always wear appropriate personal protective equipment (PPE), including a welding helmet, gloves, and protective clothing.
- Ensure proper ventilation to avoid inhaling welding fumes.
- Protect eyes and skin from arc rays.
- Prevent electric shock by ensuring proper grounding and inspecting cables for damage.
- Keep flammable materials away from the welding area.
- Disconnect power before performing any maintenance or adjustments.
- The machine features auto shutdown with error codes (E1=Overcurrent / E2=Overheat) for safety.

3. PRODUCT OVERVIEW

The BILT HARD 135A Welder is a versatile 3-in-1 machine designed for various welding applications. It features an IGBT inverter design for improved efficiency and a synergic control system for ease of use.

3.1 Included Components

- BILT HARD 135A 3-in-1 Welder
- Solar Powered Auto Darkening Welding Helmet
- Welding Gloves
- 6.6ft MIG Gun (pre-installed 0.030" tip)

- 10ft Ground Clamp
- 10ft Electrode Holder
- 2lb Flux Core Wire (0.030")
- Spare 0.035" Conduct Tip
- Brush & Hammer
- User Manual



Figure 3.1: BILT HARD 135A Welder with all included accessories, including the welding helmet, gloves, MIG gun, ground clamp, electrode holder, flux core wire, and brush/hammer.

3-IN-1 WELDING MACHINE

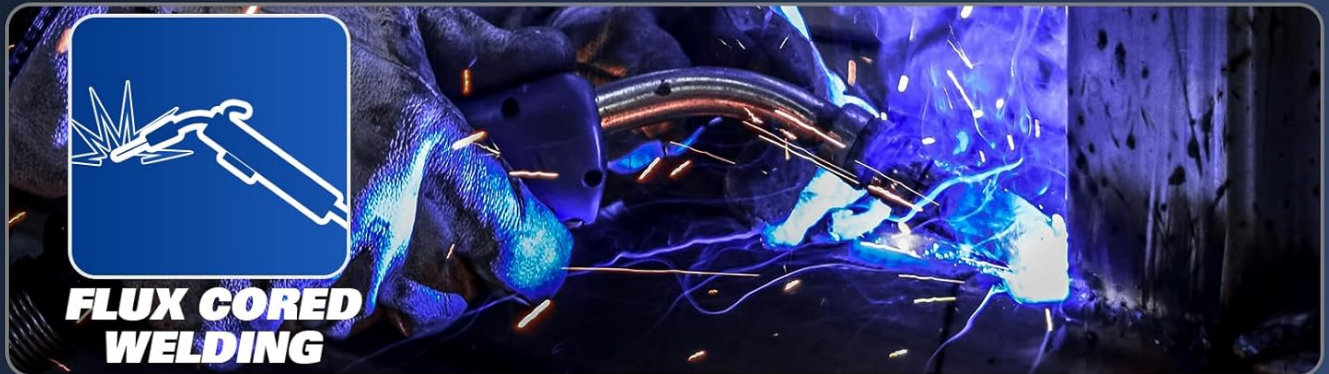


Figure 3.2: Illustration of the three welding modes supported by the BILT HARD 135A Welder: Stick (MMA), Flux Cored MIG, and Lift TIG.

SAFE & INTELLIGENT

Overload Protection

LED display "E1"/"E2" error code then automatic shutdown

Built-in Fan

Keep working for 1-2 mins after shutdown

Water Rating

IP21 protection standard

Electrostatic

Unique coating to prevent shock transfer



Figure 3.3: Key safety and intelligent features of the welder, including overload protection (E1/E2 error codes), built-in fan for cooling, IP21 water rating, and electrostatic coating.

WELDER BUTTON INTRODUCTION



① Voltage/ Plate Thickness/Spot Time Display	⑧ Control Switch Socket
② Amperage/Wire Feeding Speed Display	⑨ Positive Output Terminal
③ Weld Mode Options	⑩ Power Switch
④ Wire Diameter Options	⑪ Input power Cable
⑤ Steps Mode Options	⑫ Earth Pin
⑥ Adjust Knob	⑬ Nameplate
⑦ MIG Gun Socket/ Negative Output Terminal	⑭ Fan

Figure 3.4: Detailed view of the welder's front and back panels, indicating the LED display, control knobs, output terminals, power switch, and fan.

3.2 Control Panel and Connections

The welder features an LED digital display for real-time voltage/current/wire speed tracking. Intuitive knobs and buttons allow for easy adjustment and mode selection.

- 1. Voltage/Plate Thickness/Spot Time Display:** Shows current welding parameters.
- 2. Amperage/Wire Feeding Speed Display:** Displays output current and wire feed rate.
- 3. Weld Mode Options:** Select between Flux Core MIG, Lift TIG, and Stick (MMA).
- 4. Wire Diameter Options:** Choose between 0.030" or 0.035" flux core wire.
- 5. Steps Mode Options:** Choose 2T, 4T, or Spot trigger modes.
- 6. Adjust Knob:** Fine-tune welding parameters.
- 7. MIG Gun Socket/Negative Output Terminal:** Connection point for MIG gun or negative lead.
- 8. Control Switch Socket:** For specific accessory connections.
- 9. Positive Output Terminal:** Connection point for positive lead.

10. **Power Switch:** Turns the unit on/off.
11. **Input Power Cable:** Connects to 110V AC power source.
12. **Earth Pin:** Grounding connection.
13. **Nameplate:** Contains product identification information.
14. **Fan:** Provides cooling for the machine.

4. SETUP

4.1 Initial Inspection

Upon unpacking, inspect the welder and all accessories for any signs of damage. Report any damage to your supplier immediately.

4.2 Power Connection

Connect the input power cable to a standard 110V AC outlet. Ensure the power source meets the welder's requirements.

4.3 Connecting Welding Cables

Connect the MIG gun, ground clamp, or electrode holder to the appropriate terminals on the front panel. Ensure connections are secure.

Your browser does not support the video tag.

Video 4.1: This video demonstrates the basic setup and connection of the BILT HARD 3-in-1 Welder, showing how to connect the welding leads and prepare for operation.

4.4 Loading Flux Core Wire (for MIG Welding)

1. Open the side panel of the welder.
2. Place the 2lb flux core wire spool onto the spindle.
3. Feed the wire through the wire feed mechanism and into the MIG gun liner.
4. Close the side panel securely.



Figure 4.1: Illustration of the easy side-loading mechanism for welding wire on the BILT HARD 135A Welder.

5. OPERATING INSTRUCTIONS

5.1 Selecting Welding Mode

Use the "Weld Mode Options" button on the control panel to cycle through Flux Core MIG, Lift TIG, and Stick (MMA) modes. The selected mode will be indicated on the LED display.

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Video 5.1: This video provides an overview of the BILT HARD 135A 3-in-1 MIG Welder, demonstrating its multi-process capabilities and ease of use.

5.2 Adjusting Parameters (Synergic Control)

The synergic control system automatically adjusts voltage and feed speed based on the amperage you set. Use the "Adjust Knob" to fine-tune the current for your specific welding task. For advanced users, specialized MIG (burn-back/inductance) and MMA (hot start/arc force/VRD) modes are available for customized welding.

5.3 Welding Helmet and Gloves

Always wear the provided solar-powered auto-darkening welding helmet and heat-resistant gloves before starting any welding operation. The helmet offers a viewing size of 3.66"x1.69" and the gloves are rated for 932°F/500°C.

HEAT RESISTANT WELDING GLOVES & E71T-GS .030" WELDING WIRE



932° F / 500 °C

*Fire & Heat Resistant
Temperature*

.030" / 0.8mm

*Apply to D100 rolls of
.030" flux core wire*

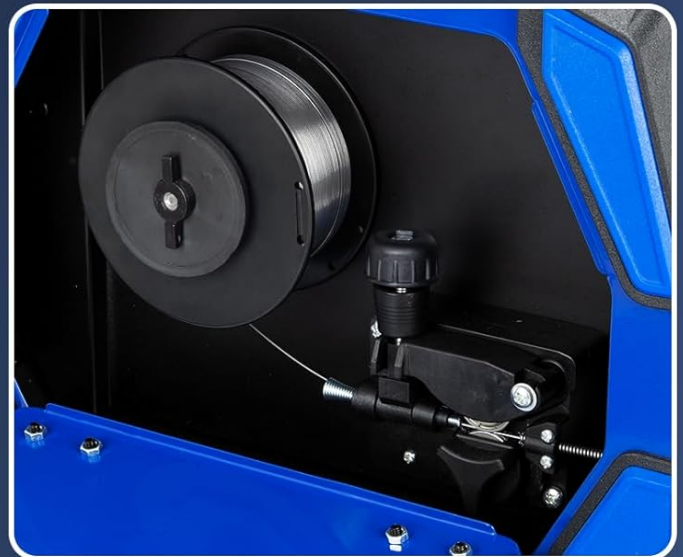


Figure 5.1: Features of the auto-darkening welding helmet, including true color view, fast darkening, and adjustable headband.



OURS



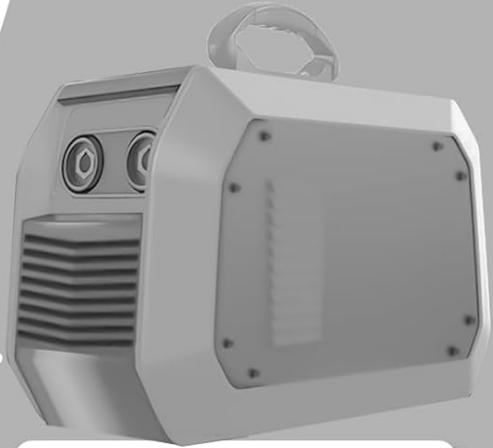
1. SYN Digital Panel



2. 3-In-1 Welder



3. Equipped with Helmet, Gloves & Welding Wire



OTHERS

1. Ordinary Panel
2. Flux Core Only
3. Need to Buy Separately

Figure 5.2: Details on the heat-resistant welding gloves and the included 0.030" flux cored wire.

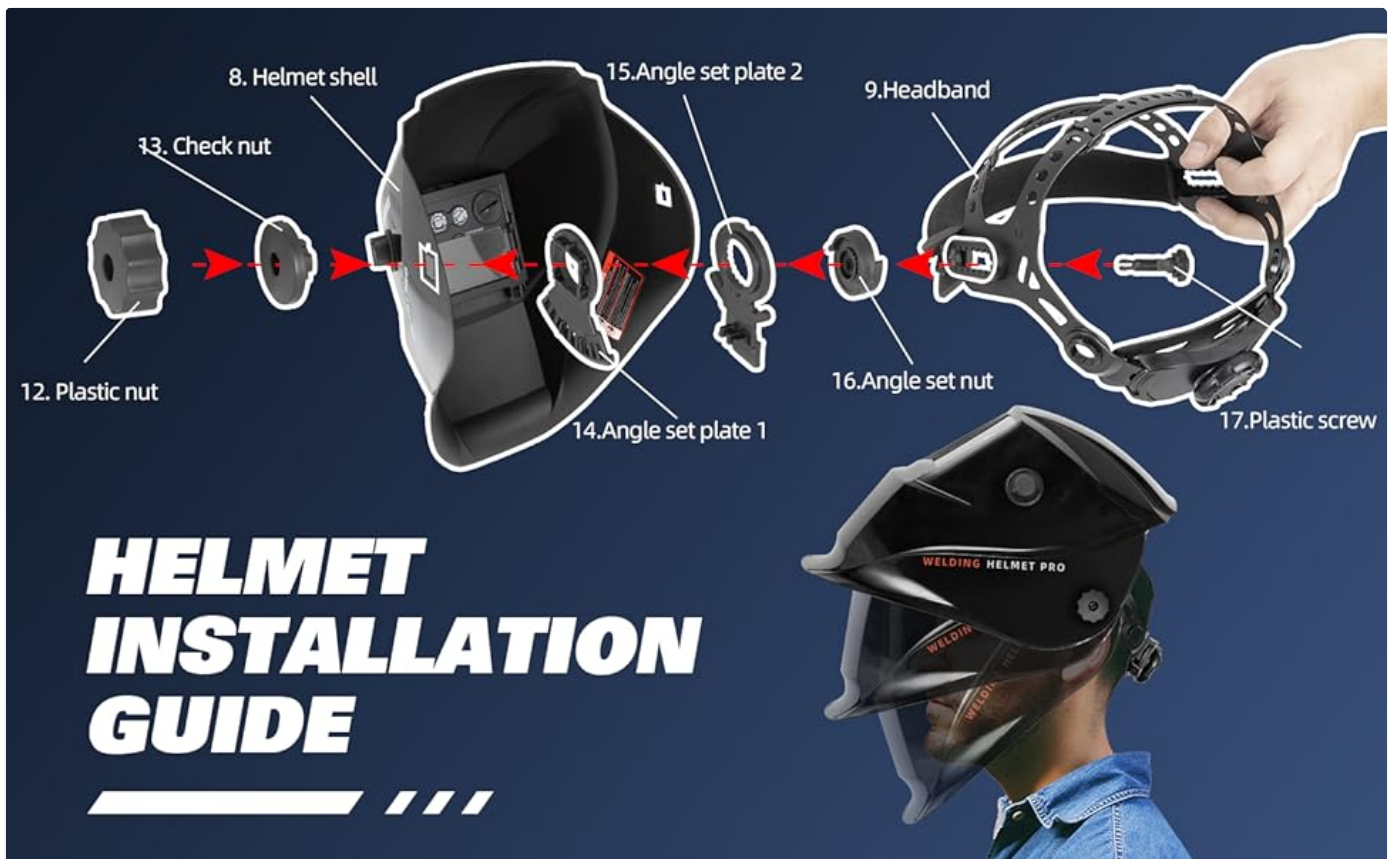


Figure 5.3: Step-by-step guide for assembling the welding helmet's headband and components.

6. MAINTENANCE

6.1 Cleaning

Regularly clean the exterior of the welder with a dry cloth. Ensure the cooling fan and vents are free from dust and debris to maintain optimal airflow.



Figure 6.1: The built-in fan promotes heat dissipation, and the included wire brush helps remove debris after welding.

6.2 Storage

Store the welder in a dry, clean environment away from direct sunlight and extreme temperatures. Disconnect all cables and store them neatly.

6.3 Wire Feed Mechanism

Periodically check the wire feed mechanism for any obstructions or wear. Ensure the wire guide and contact tip are clean and in good condition.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Welder does not power on.	No power supply; faulty power cable.	Check power outlet and cable connections.
Error Code E1 (Overcurrent).	Excessive current draw.	Reduce welding current; allow machine to cool.
Error Code E2 (Overheat).	Machine overheated.	Allow machine to cool down (fan will continue for 1-2 mins); ensure proper ventilation.
Poor weld quality.	Incorrect settings; improper technique; dirty workpiece.	Adjust voltage/wire speed; review welding technique; clean workpiece thoroughly.
Wire feeding issues (MIG).	Tangled wire; clogged liner; worn contact tip.	Untangle wire; clean/replace liner; replace contact tip.

8. SPECIFICATIONS

Feature	Detail
Model Number	WLD-1606
Input Voltage	110 Volts AC
Welding Processes	Flux Core MIG, Lift TIG, Stick (MMA)
MIG Current Range	30A - 135A
MMA Current Range	20A - 135A
TIG Current Range	15A - 135A
Wire Diameter Support	0.030" (0.8mm), 0.035" (0.9mm)
Trigger Modes	2T, 4T, Spot
Dimensions (L x W x H)	13.6 x 6.6 x 11.15 inches
Item Weight	76 pounds
Protection Standard	IP21

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or visit the official BILT HARD website. The product is sold by Weize, and customer support is available.

Additional protection plans may be available for purchase, offering extended coverage for 3 or 4 years.